

CLAIMS

What is claimed is:

1. An apparatus for processing or storing secure data comprising:
 - a secure port for transmitting and receiving secure data;
 - 5 a test port for transmitting and receiving test data; and
 - a test mode entry circuit that causes entry of the apparatus into a test mode, the test mode entry circuit operable for a predetermined time period.
2. The apparatus of claim 1, wherein the test mode entry circuit is coupled to the secure port, and when data is applied to the secure port, the test mode entry
10 circuit causes entry of the apparatus into a work mode.
3. The apparatus of claim 2, wherein the entry into the work mode disables re-entry of the apparatus to the test mode.
4. The apparatus of claim 1, wherein the predetermined time period commences approximately coincident to when power is applied to the apparatus.
- 15 5. The apparatus of claim 1, further comprising:
 - test circuitry coupled to the test mode entry circuitry which performs diagnostic functions while the apparatus is in test mode.
6. The apparatus of claim 1, wherein the test mode entry circuit is coupled to the test port and entry into the test mode is dependent on test data received through
20 the test port within the predetermined time period.

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7. The apparatus of claim 6, wherein the test data comprises one or more electrical signals received through the test port and at least one of the electrical signals is an out of spec voltage.
8. The apparatus of claim 6, wherein the test mode entry circuit causes the
5 apparatus to enter the work mode if the test data is not received within the predetermined time period.
9. The apparatus of claim 1, further comprising:
memory for storing the secure data.
10. The apparatus of claim 9, wherein the memory is non-volatile.
- 10 11. The apparatus of claim 10, further comprising:
a memory erasing circuit which erases the secure data stored in the non
volatile memory upon entry of the apparatus into the test mode.
12. A method for testing a device for processing or storing secure data comprising
the steps of:
15 providing a test port for receiving and transmitting test data;
providing a secure port for receiving and transmitting test data; and
enabling the entry of the device to a test mode, the device operable in a
test mode for a predetermined time period.
13. The method of claim 12, further comprising the step of:
20 performing diagnostic functions while the apparatus is in the test mode.
14. The method of claim 12, further comprising the step of:

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after data is received through the secure port, causing the entry of the device into a work mode.

15. The method of 14, further comprising the step of:
after entry of the device into the work mode, disabling re-entry of the
5 device into the test mode.
16. The method of claim 12, wherein the predetermined time period commences approximately coincident to when power is applied to the apparatus.
17. The method of claim 12, wherein entry into the test mode is dependent upon test data present on the test port.
- 10 18. The method of claim 17, wherein entry into the work mode is automatic if the test data is not received on the test port within the predetermined time period.
19. The method of claim 12, wherein entry into test mode is automatic after power is applied to the device.
20. The method of claim 12, further comprising the step of:
15 storing the secure data in a memory.
21. The method of claim 20, wherein the memory is non-volatile.
22. The method of claim 21, further comprising the step of:
erasing the secure data stored in the non-volatile memory upon entry of
the device into the test mode.